

raised towards the apex and furnished with biseriate incurved pale hairs and single central row of small tubercles; the anterior coxæ are widely separated, but the prosternal process is obscure.

Length 1.4, breadth .9 mm.

*Hab.* Sarawak, Mt. Matang (*Bryant*).

It is impossible to thoroughly examine this unique specimen, as the head is much depressed over the prosternum; but, from what can be seen, it appears to approximate to *Strophionocerus* (*Teniocerus*) *eutomoides*, Bldf.

III.—On Three new Parasitic Mites (*Leptus*, *Schöngastia*, and *Demodex*). By STANLEY HIRST.

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*Leptus* (*Trombicula*?) *similis*, sp. n.

Very like *Leptus autumnalis*, Shaw, in most respects, but the hairs on the legs are not nearly so strongly feathered. Claws of legs shorter than in *L. autumnalis*, those of the second pair being especially short. The rod-like hair on tarsus of first leg straighter and longer than in *L. autumnalis*.

*Scutum* very like that of *L. autumnalis*, the posterior margin being somewhat convex in outline. Pseudostigmata situated in middle of scutum (almost equidistant between anterior and posterior margins); they are not very long, being apparently shorter than in *L. autumnalis*, and are very fine and plain for the greater part of their length, but the terminal part is distinctly feathered. Hairs on dorsum about twenty in number; usually there are paired outer hairs (one on each side), alternating with inner rows of four hairs, the two first of these rows of hairs being followed by a pair of inner hairs. A single hair is present on each coxa (epimeron) of the legs. Hairs on palp apparently exactly the same as in *L. autumnalis*.

Length of body (not including capitulum) 430  $\mu$ .

*Host.* A few specimens from a chicken, Dallas, Texas, 24. vii. 1916, collected by H. P. Wood (U.S. Dept. of Agriculture).

*Schöngastia americana*, sp. n.

Scutum not so definite in shape as in the known species of

*Schöngastia*, being weakly chitinized; posteriorly it is interrupted in the middle, being practically divided into two portions or wings by a series of (median) longitudinal parallel striations; the anterior margin of the scutum is still entire, however, and bears the usual three hairs (median and anterior laterals); the pseudostigmata are placed on the lateral wings of the scutum, nearer to its anterior margin than to the posterior; the posterior laterals are sometimes placed on little platelets by themselves, but these may be united with the scutum. There is also an additional transverse strip of chitin situated well in front of the scutum on the front margin of the dorsum. Pseudostigmata globular and furnished with longitudinal striations; the stalk is short. Median anterior hair of scutum the shortest, being considerably shorter than the anterior lateral ones. Posterior laterals longer than, or sometimes equal in length to, the anterior laterals. All five hairs on the scutum are strongly feathered, especially the anterior ones. Ocular scutum wider in front than behind; anterior eye large and rounded, the posterior also well developed but considerably smaller. There are about 30-32? hairs on the dorsum; they have the accessory hairlets poorly developed, but more visible than in *Leptus similis*. Dorsal hairs of palp feathered; those on the ventral surface of the base of the capitulum are quite short. Hairs on legs fairly well feathered. A single hair is present on the first and second coxæ (epimera), but there are three on the third coxa, two of them being placed on the anterior margin. The striated rod-like sensory hair on the upper surface of the first tarsus is long and slender. Tarsus of last leg elongated, the end narrowed but not abruptly.

*Length* of body (not including capitulum) 220-330  $\mu$ .

*Host*. Several specimens from a chicken, Dallas, Texas, 24. vii. 1916, collected by H. P. Wood (U.S. Dept. of Agriculture).

*Demodex melesinus*, sp. n.

♀. Closely resembling *D. folliculorum* (of man), but smaller in size. Capitulum wider than long, but more elongated than that of *D. folliculorum*; tubercle on capitulum exceedingly minute, being smaller even than that of *D. folliculorum* (and much smaller than that of *D. canis*); apparently it is pointed. Body from a little less than five up to five and a half times as long as the width of the cephalothorax. Abdomen much longer than cephalothorax + capitulum.

*Measurements*. Length of body (incl. capitulum) 200-217  $\mu$ , of cephalothorax + capitulum 78-79  $\mu$ , of abdomen 122-138  $\mu$ , of capitulum 20  $\mu$ ; greatest width of cephalothorax 39-43  $\mu$ , of abdomen 42-45  $\mu$ , of capitulum 27-29  $\mu$ .

*Host. Meles taxus*; several specimens collected by the author (9. vii. 1919) from a badger caught at Lutterworth, Leicestershire.

#### Genus PSOROPTES, Gerv.

With the exception of *Psoroptes natalensis*, mihi, the forms of *Psoroptes* occurring on domestic animals resemble one another exceedingly closely in structure, and it is probable that they are merely varieties of a single species (*P. communis*). The hairs on the abdominal lobes of the males differ somewhat, however, in these varieties. In *P. communis*, var. *ovis*, and *P. communis*, var. *cuniculi*, the second hair from the outside of the lobe is very fine and much shorter than in *P. communis*, var. *equi*. In the var. *caprae* it is longer than in the varieties *ovis* and *cuniculi*, but not nearly as long as in var. *equi*, whilst in the var. *cervinus* (from the big horn) it is very variable in length.

The presence or absence of stigmata in Sarcoptid mites is still doubtful. In the genus *Psoroptes* and its allies (*Chorioptes* etc.) there is present a strip of chitin bearing a very minute crescent-shaped pore or marking which may perhaps be an obsolete stigma. It is situated between the base of the first leg and the dorsal scutum, and is best seen in specimens which have been subjected to pressure, for it is overlapped and hidden by a fold of the skin. Apparently there is no trace of tracheal tubes.

#### *Psoroptes natalensis*, Hirst.

Mégnin's specimens of *Psoroptes* found on a buffalo from Cochin China living in the menagerie of the Paris Museum (specimens collected 24. viii. 1885), and determined by him as *P. longirostris* [= *P. communis*], are really referable to *P. natalensis*. Two of the hairs on each abdominal lobe of the male are distinctly flattened and blade-like. My best thanks are due to Dr. M. Langeron, of the Laboratoire de Parasitologie of the Paris University, for kindly permitting me to examine Mégnin's slide of this mite.

It is evident that two species of *Psoroptes* are parasitic on cattle, for I have examined specimens referable to *P. communis* (var. *bovis*?) collected from cattle at Johannesburg, South Africa (specimens kindly sent to me by Mr. G. A. H. Bedford, of the South African Union Veterinary Department). All the hairs on the abdominal lobes of the male are quite fine and unmodified (not flattened) in these examples from Johannesburg.